

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of

Peter Gansen

Confirmation No. 4232

Serial No. 10/792,269

Group Art Unit 1714

Filed March 4, 2004

Examiner Niland

For POLYURETHANE COMPOSITION FOR THE
PRODUCTION OF FOILS

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

APPELLANT'S BRIEF UNDER 37 C.F.R. §41.37

A Notice of Appeal was filed in this application on March 9, 2007. This brief is filed in support of the appeal. A petition for a two month extension of time is concurrently filed with this brief. The Commissioner is authorized to charge attorney's deposit account 50-2041 (Whitham, Curtis, Christofferson & Cook) for any fees which may be required to grant the petition for an extension of time and to gain entry of the appeal brief.

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I. REAL PARTY IN INTEREST

The real party in interest in the appeal is:

- ☐ the party named in the caption of this brief
- ☒ the following party:

Otto Bock Schaumssysteme GmbH

located at 37115 Duderstadt, Germany

II. RELATED APPEALS AND INTERFERENCES

With respect to other appeals, interferences or judicial proceedings that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal:

☒ there are no related appeals, interferences or judicial proceedings related to, which directly affect or may be directly affected by or have a bearing on the Board's decision in this pending Appeal.

☐ these are as follows:

III. STATUS OF CLAIMS

The status of the claims in this application are:

A. There are twenty four (24) claims in the application, and these claims are Claims 14-17 and 19-38

B. Status of all the claims:

1. Claims cancelled: 1-13 and 18
2. Claims withdrawn from consideration but not cancelled: none
3. Claims pending: 14-17 and 19-38
4. Claims allowed: none (however, claims 27, 29 and 33 are identified as being drawn to allowable subject matter, and are therefore are not part of this appeal)
5. Claims rejected: 14-17, 19-26, 28, 30-32, and 34-38

C. Claims on Appeal.

The claims on appeal are: 14-17, 19-26, 28, 30-32, and 34-38

IV. STATUS OF AMENDMENTS

The status of amendments filed subsequent to the final rejection are as follows: An amendment under 37 C.F.R. §1.116 was filed January 25, 2007; however, this amendment was not entered on grounds that it raised new issues. See Advisory Action mailed February 14, 2007. The claims on appeal do not include subject matter included in the amendment filed subsequent to the final rejection.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The patent application describes methods and compositions for producing polyurethane foils. As explained on page 1, lines 11-17, polyurethane foils are used for decorative purposes, for protective purposes, for functioning as release foils, and for jacketing of plastic products. The foils are produced by spraying them onto a flat surface such as a belt or into a mold, and then allowing them to react completely or “cure”, and then peeling them from the surface or otherwise “demolding” them (see page 1, lines 19-32). Prior systems and methods employed components which would result in discolorations, bubbling effects, or would not be suitable for production of a foil (see the application at page 2, line 36 to page 3, line 19).

The present invention, as defined in **independent claims 14, 37 and 38**, provide a polyurethane composition and method which allows processing successfully without solvent and which gives a material with good physical and mechanical properties that can be freely demolded within practicable demolding times (see page 3, lines 21 et seq.). Each of these claims requires that the polyurethane composition which produces the freely demoldable foil include the following components (A)-(D), at least some of which are stored separately (see page 3, line 36 and page 9, lines 24 et seq.)

(A) a di- or polyisocyanate (see page 3, line 38)

(B) a compound containing hydrogen active in a polyurethane reaction (see page 4, lines 1-2)

(C) a catalyst or a system catalyzing the polyurethane reaction (see page 4, lines 3-4)

(D) a fine-particle oxide of a metal or of a metalloid, as additive at a concentration above 3% (or 5%-claim 37) by weight (see page 4, lines 5-8)

Each of claims 14, 37, and 38 require that the composition be in the absence of amine initiators (see page 4, line 9)

Page 4, lines 11-32, discusses exemplary di- or polyisocyanates (A). Page 4, lines 34 to page 6, line 11 discusses exemplary compounds containing hydrogen active in a

polyurethane reaction (B). Page 6, lines 13 to 26 discusses various attributes of components (A) and (B). Page 6, lines 29 et seq. discusses exemplary catalysts (C). Page 11, lines 6-15 of the application identifies metal catalysts and amine catalysts used in the comparative examples. Page 8, lines 7 et seq. discusses exemplary fine particle oxides (D). The comparative example 2, shown in the table on page 13 of the application, lacks silicon dioxide 1 (all examples include silicon dioxide 2-a hydrophobic fumed silicon dioxide used as a thixotropic agent (see page 12 of the application at line 7)). As explained on page 14 of the application, the use of higher amounts of silicon dioxide results in a 3 fold higher tensile strength at break, a doubling of tear propagation resistance, and a halving of the demolding time.

Claim 14 is drawn to a method where the polyurethane composition is
a) sprayed in one or more passes onto a smooth surface or into a mold (see page 8, at lines 38 and 39)

b) permitted to react to completion (see page 9, at line 2)

c) demolded after curing (see page 1, line 27 and 14, line 14)

Independent claim 36 is drawn to the demolded foil itself and requires a polyurethane foil with a thickness from 0.1 to 5 mm (see page 9, line 4), which comprises a fine-particle oxide of a metal or of a metalloid (see page 8 lines 7 et seq.), and which is free from amine initiators. As noted above, independent claims 14, 37 and 38 also require the absence of amine initiators.

As noted on page 7, lines 23-25, the process makes “it possible to omit entirely the amine initiator added on previous occasions to give an adequately short demolding time, and thus at the same time reducing markedly the risk of bubble formation” (emphasis added). Thus, it should be understood that the methods and compositions eliminate primary and secondary amines used in prior art formulations to accelerate the reaction because of the higher reactive rates of amines.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are as follows:

- 1) Claim 31 has been rejected under 35 U.S.C. §112, first paragraph;
- 2) Claim 31 has been rejected under 35 U.S.C. §112, second paragraph;
- 3) Claims 17 and 36-38 have been rejected under 35 U.S.C. §102(b and e),
referencing EP 1095993 A2 and U.S. Patent Publication 2005/0263243 to Schuman;
and
- 4) Claims 14-17, 19-26, 28, 30-32, and 34-38 have been rejected as being obvious
over EP 1095993 A2 and U.S. Patent Publication 2005/0263243 to Schuman.

ARGUMENT VIIA. REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH

Claim 31 requires that the compound of component (B) used in the process of claim 21 has more than 60% of primary OH groups. Claim 3 as originally filed, at page 15, lines 30 and 21 provides specific support for the language used in claim 31. Thus, it is simply incorrect to conclude that the compounds encompassed by claim 31 are “new matter”, as the application text as originally filed, has specific support for the claimed subject matter. While page 6, lines 8 and 9 state that “Preference is given to the use of hydroxy-terminated polyethers having more than 60% of primary OH groups”, the application describes a number of hydroxy functional materials for component (B) (see page 5, at lines 14 et seq.). This, coupled with the text of original claim 3, makes clear that claim 31 that, contrary to the conclusions drawn by the Examiner, the applicant had possession of the claimed invention at the time the application was filed, and provided an adequate written description therefor.

ARGUMENT VIIB. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Claim 31 recites “The process of claim 21, wherein the compound of component (B) has more than 60% of primary OH groups.” Claim 21 limits component (B) to polyols, which by definition are polymers with alcohol or “OH” moieties. According to claim 31, 60% or more of the OH groups are primary OH groups. Claim 31 is not related to amino or thio moieties as contemplated in the office action. As such, claim 31 satisfies the “definiteness” requirements of 35 U.S.C. §112, second paragraph.

ARGUMENT VIIC. REJECTIONS UNDER 35 U.S.C. §102

Claims 17 and 36-38 have been rejected under 35 U.S.C. §102(b and e), referencing EP 1095993 A2 and U.S. Patent Publication 2005/0263243 to Schuman.

US Patent Publication 2005/0263243 is not a proper reference

At the outset, it is noted that U.S. Patent Publication 2005/0263243 and EP 1095993 A2 do not include the same text. This can be seen simply by noting that EP 1095993 A2 has a single drawing while U.S. Patent Publication 2005/0263243 has seven drawings. Thus, handling the two documents as equivalent is improper.

Further, it has been noted during prosecution that U.S. Patent Publication 2005/0263243 to Schuman has a filing date (April 25, 2005) which is after the filing date of the present application (March 4, 2004). U.S. Patent Publication 2005/0263243 is a continuation-in-part of USSN 09/698,404 filed October 27, 2000 (abandoned per decision by the Board of Appeals and Patent interferences in Appeal No. 2006-0296 (see Decision mailed December 15, 2005)). In fact, U.S. Patent Application 09/698,404 appears to be similar to EP 1095993 A2 in that it has a single figure (a copy of 09/698,404 was provided to the Examiner for his convenience in the amendment filed January 5, 2007 (see page 6).

Thus, US Patent Publication 2005/0263243 should not be recognized as a proper reference under either 35 U.S.C. §102(e) or §103.

U.S. Patent Publication 2005/0263243 and EP 1095993 do not describe a polyurethane foil

It will be recognized that US Patent Publication 2005/0263243, USSN 09/698,404, and EP 1095993 (all to Schumann et al.) describe coating of web materials with a polyurethane backing material. See particularly in Figure 1 of each document web materials 1 and 2, on which a liquid polyurethane backing material 4 (see [0050] of 2005/0263,243) is deposited and partially cured. Each of the

documents discuss partial curing to a point of crossover between G' and G". At this point, the tape can be wound up even though curing of the polyurethane is not completed (see [0089] and [0090] of 2005/0263243). In short, it will be recognized by the Board that the Schumann references do not describe or suggest a polyurethane foil which is peeled off a mold or flat surface. The end product of the Schumann references is a web 1 to which a not fully cured polyurethane backing material 4 is attached. It is not a thin polyurethane foil having high tensile strength.

In short, the Schumann references are simply not related to freely demoldable films at all. Consequently, Schumann does not address mechanical tear strength and tear propagation for demolding. The tape of Schumann is not a freely demoldable film since it has a backing. As such, the composition claims 17 and 36-38 are not anticipated by Schumann. Furthermore, as will be noted below, the Schumann process specifically teaches away from allowing the polyurethane to react to completion as specified in method claims 14-16 and 18-35. Rather, Schumann specifically requires partial curing when manufacturing the tape.

U.S. Patent Publication 2005/026,243 and EP 1 095 993 to Schuman teach the use of amine initiators

In the Office Action dated March 24, 2006, the Examiner reviewed EP 0 379 246 to Recticell. This patent relates to light stable, sprayable and freely demoldable films, and is discussed in the present application at page 3 second paragraph. As noted from the abstract of Recticell, "amine initiators" are discussed (see also page 5 lines 52-54 of Recticell). Recticell discusses amine initiators in more detail on page 9, beginning at line 28, and the Board's attention is drawn to line 45 which references "Jeffamines" (Texaco) for propylene oxide addition products having terminal primary and secondary amino groups.

Independent claims 36-38 (as well as independent claim 14) specifically exclude the use of amine initiators. With reference to page 5 of the application at lines 28-31 and 35 it can be seen that the invention makes it possible to avoid completely

the use of amine initiators . This difference, as well as others, distinguishes the claimed invention from that described in the Recticell patent.

With reference paragraph [0101] of U.S. Patent Publication 2005/0263243 to Schumann makes clear that Schumann does not intend to avoid built in amines which will function as amine initiators. See particularly the reference to polyether amines, polyether diamines, and polyether diamines which correspond to the “jeffamines” (Texaco) mentioned in EP 0 379 246 to Recticell at page 9, lines 45-47(see also Recticell patent at page 4 at line 40 et seq. for “jeffamine” type materials).

A. Claim 38

Claim 38 recites: A polyurethane composition for production of foils, consisting essentially of the following components, at least some of which are stored separately:

- (A) a di- or polyisocyanate
 - (B) a compound containing hydrogen active in a polyurethane reaction;
 - (C) a catalyst or a system catalyzing the polyurethane reaction;
 - (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a concentration by weight above 3 %;
- without amine initiators.

As noted above, Schumann does not describe a foil; it describes a tape with a backing material. Schumann is completely unrelated to demoldable films where such factors as mechanical tear strength and tear propagation resistance for demolding are important issues.

The Examiner has stated that in Schumann, “No amine initiator is used” (see page 4 of the Final Rejection at line 5). This is simply incorrect. As noted above, paragraph [0101] of Schumann clearly describes the use of exemplary amine initiators (see discussion above referencing the Recticell patent). Thus, it is incorrect to conclude that Schumann explicitly or implicitly teaches avoiding amine initiators.

Thus, the rejection of claim 38 should be withdrawn for at least these reasons.

B. Claim 37

Claim 37 recites: A polyurethane composition for production of foils, comprising the following components, at least some of which are stored separately:

- (A) a di- or polyisocyanate
- (B) a compound containing hydrogen active in a polyurethane reaction;
- (C) a catalyst or a system catalyzing the polyurethane reaction;
- (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a concentration by weight above 5 %;
without amine initiators.

Claim 37 is not anticipated by the Schumann references for at least the same reasons discussed above in connection with the claim 38. That is, Schumann does not show a composition for the production of foils—Schuman instead shows the production of a tape, and contrary to the conclusions in the Final Rejection, paragraph [0101] makes clear that Schumann contemplates the use of amine initiators, which is expressly avoided in claim 37. While claim 37 uses open ended “comprising” language, it clearly excludes amine initiators, and is thus clearly distinguishable from the prior art Schumann references. Claim 37 is separately patentable from claim 38 in that it permits additional materials to be included.

C. Claim 36

Claim 36 recites: A demolded polyurethane foil with a thickness from 0.1 to 5 mm, which comprises a fine-particle oxide of a metal or of a metalloid, and which is free from amine initiators.

Similar to claims 37 and 38, claim 36 requires that the foil is free from amine initiators. As noted above, Schumann does not teach a foil, and Schumann does not teach a material is free from amine initiators. Claim 36 requires a demolded polyurethane foil. Schumann teaches a self-adhesive article where a web 1 is coated with a polyurethane backing material 4. Separation of web 3 from the combined web 1/backing material 4 does not result in a demolded foil; rather, the resulting material is a self adhesive, layered entity where backing material 4 is present in a partially cured state on web 1. Claim 36 is not anticipated by the Schumann references for at

least this reason alone. In addition, as noted above, paragraph [0101] of Schumann does not suggest not using amine initiators. Quite the contrary. Paragraph [0101] specifically identifies the use of primary and secondary amino polymers which will function as amine initiators.

ARGUMENT VIID. REJECTIONS UNDER 35 U.S.C. §103

Claims 14-17, 19-26, 28, 30-32 and 34-38 have been rejected as being obvious over EP 1095993 A2 and U.S. Patent Publication 2005/0263243 to Schuman.

US Patent Publication 2005/0263243 is not a proper reference

For the same reasons discussed above in Argument VIIC, U.S. Patent Publication 2005/0263,243 should not be considered a valid reference against any of the claims in the present application (i.e., the filing date of U.S. Patent Publication 2005/0263243 to Schumann is after the filing date of the present application, and the parent USSN 09/698,404 to Schumann lacks several of the figures and much of the text now present in US Patent Publication 2005/0263243).

U.S. Patent Publication 2005/0263243 and EP 1095993 do not describe a polyurethane foil

As noted above in Argument VIIC, it will be recognized that US Patent Publication 2005/0263243, USSN 09/698,404, and EP 1095993 (all to Schumann et al.) describe coating of web materials with a polyurethane backing material. See particularly in Figure 1 of each document web materials 1 and 2, on which a liquid polyurethane backing material 4 (see [0050] of 2005/0263,243) is deposited and partially cured. Each of the documents discuss partial curing to a point of crossover between G' and G". At this point, the tape can be wound up even though curing of the polyurethane is not completed (see [0089] and [0090] of 2005/0263243). In short, it will be recognized by the Board that the Schumann references do not describe or suggest a polyurethane foil which is peeled off a mold or flat surface. Rather, the end product of the Schumann references is a web 1 to which a not fully cured polyurethane backing material 4 is attached. It is not a thin polyurethane foil having high tensile strength.

U.S. Patent Publication 2005/026,243 and EP 1 095 993 to Schuman teach the use of amine initiators

As discussed above, paragraph [0101] of U.S. Patent Publication 2005/0263243 to Schumann makes clear that Schumann does not intend to avoid built in amines which will function as amine initiators. See particularly the reference to polyether amines, polyether diamines, and polyether diamines which correspond to the “jeffamines” (Texaco) mentioned in EP 0 379 246 to Recticell at page 9, lines 45-47(see also Recticell patent at page 4 at line 40 et seq. for “jeffamine” type materials).

A. Claim 14

Claim 14 recites: A process for producing a freely demoldable foil from a polyurethane composition, comprising components (A)-(D), at least some of which are stored separately:

- (A) a di- or polyisocyanate
- (B) a compound containing hydrogen active in a polyurethane reaction;
- (C) a catalyst or a system catalyzing the polyurethane reaction;
- (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a concentration above 3% by weight

in the absence of amine initiators,
the process comprising spraying the composition in one or more passes onto a smooth surface or into a mold, permitting it to react to completion, and demolding the foil after curing.

As noted above, Schumann does not disclose a demoldable foil as required by claim 14. Rather, Schumann describes a tape material. Furthermore, claim 14 and its dependent claims are not obvious over the Schumann references in view of its requirement of “permitting it to react to completion” (“it” being the polyurethane). Schumann expressly teaches against this. See in particular, paragraphs [0028], [0058] and [0090] of U.S. Patent Publication 2005/0263243 of Schumann where it is noted

that curing is NOT completed. The discovery in Schumann is that the tape can be wound up even though curing of the polyurethane has not been completed (see paragraph [0091] of U.S. Patent Publication 2005/0263243). Thus, for this additional reason, claim 14 and its dependent claims would not be obvious over the Schumann reference.

In addition, claim 14 and its dependent claims are not obvious over the Schumann references as it does not show demolding the foil after curing. As discussed above, the tape of Schuman (which is not a foil), is wound onto a device prior to it being fully cured. Further, removing the second backing material or web 2 as shown in Figure 1 of the Schumann references does not produce a foil as recited in the claim 14. Rather, Schumann produces a tape which is wound on a device where the tape has a partially cured backing material associated with a web (this is not a polyurethane foil). Further, peeling a release layer from a polyurethane layer is not the same as demolding a polyurethane foil from a mold or flat surface, as the release layer 3 does not serve the same function as a mold. Thus, for this further additional reason, claim 14 and its dependent claims should not be obvious over the Schumann references.

Finally, claim 14 requires that the components of the composition which is to be sprayed be present “in the absence of amine initiators”. Schumann, in contrast, references the use of materials which are amine initiators (i.e., primary and secondary amines which are built into the polymer and which accelerate the reaction because of the higher reactivity of amines).

For at least the above reasons, claim 14 and its dependent claims would not be obvious to one of ordinary skill in the art in view of the Schumann references, and the rejection should be withdrawn.

B. Claim 38

Claim 38 recites: A polyurethane composition for production of foils, consisting essentially of the following components, at least some of which are stored separately:

(A) a di- or polyisocyanate

- (B) a compound containing hydrogen active in a polyurethane reaction;
- (C) a catalyst or a system catalyzing the polyurethane reaction;
- (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a concentration by weight above 3 %;
without amine initiators.

As noted above, Schumann does not describe a foil; it describes a tape with a backing material. Schumann is completely unrelated to demoldable films where such factors as mechanical tear strength and tear propagation resistance for demolding are important issues.

The Examiner has stated that in Schumann, “No amine initiator is used” (see page 4 of the Final Rejection at line 5). This is simply incorrect. As noted above, paragraph [0101] of Schumann clearly describes the use of exemplary amine initiators (see discussion above referencing the Recticell patent). Thus, it is incorrect to conclude that Schumann explicitly or implicitly teaches avoiding amine initiators.

Thus, the rejection of claim 38 for obviousness should be withdrawn for at least these reasons.

C. Claim 37

Claim 37 recites: A polyurethane composition for production of foils, comprising the following components, at least some of which are stored separately:

- (A) a di- or polyisocyanate
- (B) a compound containing hydrogen active in a polyurethane reaction;
- (C) a catalyst or a system catalyzing the polyurethane reaction;
- (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a concentration by weight above 5 %;
without amine initiators.

Claim 37 is not obvious over the Schumann references for at least the same reasons discussed above in connection with the claim 38. That is, Schumann does not show or suggest a composition for the production of foils—Schuman instead shows the production of a tape (which includes a partially cured polyurethane), and contrary

to the conclusions in the Final Rejection, paragraph [0101] makes clear that Schumann contemplates the use of amine initiators, which is expressly avoided in claim 37.

D. Claim 36

Claim 36 recites: A demolded polyurethane foil with a thickness from 0.1 to 5 mm, which comprises a fine-particle oxide of a metal or of a metalloid, and which is free from amine initiators.

Similar to claims 14, 37 and 38, claim 36 requires that the foil is free from amine initiators. As noted above, Schumann does not teach a foil, and Schumann does not teach a material is free from amine initiators. Claim 36 requires a demolded polyurethane foil. Schumann teaches a self-adhesive article where a web 1 is coated with a polyurethane backing material 4. Separation of web 3 from the combined web 1/backing material 4 does not result in a demolded foil; rather, the resulting material is a self adhesive, layered entity where backing material 4 is present in a partially cured state on web 1. Claim 36 is not obvious over the Schumann references for at least this reason alone. In addition, as noted above, paragraph [0101] of Schumann does not suggest not using amine initiators. Quite the contrary. Paragraph [0101] specifically identifies the use of primary and secondary amino polymers which will function as amine initiators.

ARGUMENT VIIIE. REJECTION OTHER THAN 35 U.S.C. §§102, 103 AND 112

There are no other rejections than those discussed above.

VIII. CLAIMS APPENDIX

The text of the claims involved in the appeal are:

- 1 14. A process for producing a freely demoldable foil from a polyurethane
2 composition, comprising components (A)-(D), at least some of which are stored
3 separately:
4 (A) a di- or polyisocyanate
5 (B) a compound containing hydrogen active in a polyurethane reaction;
6 (C) a catalyst or a system catalyzing the polyurethane reaction;
7 (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a
8 concentration above 3% by weight
9 in the absence of amine initiators,
10 the process comprising spraying the composition in one or more passes onto a
11 smooth surface or into a mold, permitting it to react to completion, and demolding
12 the foil after curing.
- 1 15. The process as claimed in claim 14, wherein the manner of spray-application
2 is such as to give a layer thickness of from 0.1 to 5 mm.
- 1 16. The process as claimed in claim 14, wherein the composition is sprayed using
2 a temperature of from 40 to 90°C.
- 1 17. The polyurethane foil of claim 36, in which the fine-particle oxide is in a
2 proportion by weight 5 to 15%.
- 1 19. The process as claimed in claim 14, wherein the composition comprises
2 additives.
- 1 20. The process as claimed in claim 14, wherein in component (A), use is made
2 of an isocyanate in which the isocyanate groups have no direct bonding to an

3 aromatic group.

1 21. The process as claimed in claim 14, wherein the compound of component (B)
2 containing active hydrogen has been selected from polyols.

1 22. The process as claimed in claim 14, wherein component (A) has an average
2 functionality of from 2 to 3 and an NCO content of from 8 to 25%, and
3 component (B) has an average functionality of from 2 to 8.

1 23. The process as claimed in claim 14, which comprises, as catalyst, titanium
2 catalyst, or tin catalyst, or comprises a system in which the lead compounds,
3 bismuth compounds, titanium compounds, and/or tin compounds are present.

1 24. The process as claimed in claim 14, which also comprises an OH-terminated
2 chain extender or crosslinking agent with a molecular weight below 1000 and
3 with an average functionality of from 2 to 6.

1 25. The process as claimed in claim 14, wherein the proportion by weight of
2 component (C) is from 0.03 to 5 %.

1 26. The process as claimed in claim 14, wherein the proportion by weight of
2 component (D) is from 3 to 20 %.

1 28. The process as claimed in claim 14, wherein the fine-particle oxide is a fumed
2 silicon oxide, aluminium oxide, titanium oxide or is a mixture of these oxides.

1 30. The process of claim 20, comprising use of aliphatic or alicyclic isocyanates
2 or associated derivatives selected from the group consisting of allophanates,
3 biuretes and prepolymers.

- 1 31. The process of claim 21, wherein the compound of component (B) has more
2 than 60% of primary OH groups.
- 1 32. The process of claim 28, wherein with the fine-particle oxide is also relatively
2 small amounts of other oxides of metals or of metalloids.
- 1 34. The process as claimed in claim 14, wherein the manner of spray-application
2 is such as to give a layer thickness of from 0.1 to 3 mm.
- 1 35. The process as claimed in claim 14, wherein the manner of spray-application
2 is such as to give a layer thickness of from 0.1 to 2 mm.
- 1 36. A demolded polyurethane foil with a thickness from 0.1 to 5 mm, which
2 comprises a fine-particle oxide of a metal or of a metalloid, and which is free from
3 amine initiators.
- 1 37. A polyurethane composition for production of foils, comprising the following
2 components, at least some of which are stored separately:
3 (A) a di- or polyisocyanate
4 (B) a compound containing hydrogen active in a polyurethane reaction;
5 (C) a catalyst or a system catalyzing the polyurethane reaction;
6 (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a
7 concentration by weight above 5 %;
8 without amine initiators.
- 1 38. A polyurethane composition for production of foils, consisting essentially of
2 the following components, at least some of which are stored separately:
3 (A) a di- or polyisocyanate
4 (B) a compound containing hydrogen active in a polyurethane reaction;
5 (C) a catalyst or a system catalyzing the polyurethane reaction;

- 6 (D) a fine-particle oxide of a metal or of a metalloid, as additive; at a
- 7 concentration by weight above 3 %;
- 8 without amine initiators.

IX. EVIDENCE APPENDIX

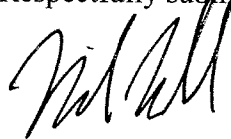
There is no additional evidence on which Applicants rely in this Appeal.

X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings involving this application.

The Commissioner is authorized to charge attorney's deposit account 50-2041 (Whitham, Curtis, Christofferson & Cook) for the fee for entry and consideration of this appeal brief, as well as the two month extension of time fee.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Michael E. Whitham', is written over the typed name.

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